

March 04, 2015

Brady Gerber
Integrated Solutions
215 S. Laura
Wichita, KS 67211

RE: Project: CLEAN HARBORS-WICHITA KS
Pace Project No.: 60188846

Dear Brady Gerber:

Enclosed are the analytical results for sample(s) received by the laboratory on March 02, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Sherri Rosenstangle
sherri.rosenstangle@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: CLEAN HARBORS-WICHITA KS

Pace Project No.: 60188846

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219

WY STR Certification #: 2456.01

Arkansas Certification #: 13-012-0

Illinois Certification #: 003097

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055

Nevada Certification #: KS000212008A

Oklahoma Certification #: 9205/9935

Texas Certification #: T104704407

Utah Certification #: KS00021

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SAMPLE SUMMARY

Project: CLEAN HARBORS-WICHITA KS

Pace Project No.: 60188846

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60188846001	GD-E3-W12.5-0.5'	Solid	03/02/15 12:20	03/02/15 22:35
60188846002	GD-E3-W12.5-5'	Solid	03/02/15 12:30	03/02/15 22:35
60188846003	TRIP BLANK	Solid	03/02/15 12:20	03/02/15 22:35

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SAMPLE ANALYTE COUNT

Project: CLEAN HARBORS-WICHITA KS

Pace Project No.: 60188846

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60188846001	GD-E3-W12.5-0.5'	EPA 8260	JKL	4
		ASTM D2974	DWC	1
60188846002	GD-E3-W12.5-5'	EPA 8260	JKL	4
		ASTM D2974	DWC	1
60188846003	TRIP BLANK	EPA 8260	JKL	4

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ANALYTICAL RESULTS

Project: CLEAN HARBORS-WICHITA KS

Pace Project No.: 60188846

Sample: GD-E3-W12.5-0.5' **Lab ID:** 60188846001 Collected: 03/02/15 12:20 Received: 03/02/15 22:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA		Analytical Method: EPA 8260						
Tetrachloroethene	2680	ug/kg	315	50		03/03/15 23:47	127-18-4	
Surrogates								
Toluene-d8 (S)	100	%	82-137	50		03/03/15 23:47	2037-26-5	
4-Bromofluorobenzene (S)	101	%	82-119	50		03/03/15 23:47	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	81-142	50		03/03/15 23:47	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974						
Percent Moisture	16.6	%	0.50	1		03/03/15 00:00		

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ANALYTICAL RESULTS

Project: CLEAN HARBORS-WICHITA KS

Pace Project No.: 60188846

Sample: GD-E3-W12.5-5' **Lab ID:** 60188846002 Collected: 03/02/15 12:30 Received: 03/02/15 22:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA		Analytical Method: EPA 8260						
Tetrachloroethene	78.1	ug/kg	5.3	1		03/04/15 13:03	127-18-4	
Surrogates								
Toluene-d8 (S)	99	%	82-137	1		03/04/15 13:03	2037-26-5	
4-Bromofluorobenzene (S)	100	%	82-119	1		03/04/15 13:03	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	81-142	1		03/04/15 13:03	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974						
Percent Moisture	15.9	%	0.50	1		03/03/15 00:00		

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ANALYTICAL RESULTS

Project: CLEAN HARBORS-WICHITA KS

Pace Project No.: 60188846

Sample: TRIP BLANK **Lab ID:** 60188846003 Collected: 03/02/15 12:20 Received: 03/02/15 22:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA		Analytical Method: EPA 8260						
Tetrachloroethene	ND	ug/kg	5.0	1		03/04/15 00:18	127-18-4	
Surrogates								
Toluene-d8 (S)	99	%	82-137	1		03/04/15 00:18	2037-26-5	
4-Bromofluorobenzene (S)	97	%	82-119	1		03/04/15 00:18	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-142	1		03/04/15 00:18	17060-07-0	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CLEAN HARBORS-WICHITA KS

Pace Project No.: 60188846

QC Batch: MSV/67969

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV 5035A Volatile Organics

Associated Lab Samples: 60188846001, 60188846003

METHOD BLANK: 1527970

Matrix: Solid

Associated Lab Samples: 60188846001, 60188846003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Tetrachloroethene	ug/kg	ND	5.0	03/03/15 23:32	
1,2-Dichloroethane-d4 (S)	%	103	81-142	03/03/15 23:32	
4-Bromofluorobenzene (S)	%	99	82-119	03/03/15 23:32	
Toluene-d8 (S)	%	99	82-137	03/03/15 23:32	

LABORATORY CONTROL SAMPLE: 1527971

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	ug/kg	100	104	104	73-126	
1,2-Dichloroethane-d4 (S)	%			99	81-142	
4-Bromofluorobenzene (S)	%			100	82-119	
Toluene-d8 (S)	%			99	82-137	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: CLEAN HARBORS-WICHITA KS

Pace Project No.: 60188846

QC Batch: MSV/67984

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV 5035A Volatile Organics

Associated Lab Samples: 60188846002

METHOD BLANK: 1528428

Matrix: Solid

Associated Lab Samples: 60188846002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Tetrachloroethene	ug/kg	ND	5.0	03/04/15 11:16	
1,2-Dichloroethane-d4 (S)	%	101	81-142	03/04/15 11:16	
4-Bromofluorobenzene (S)	%	99	82-119	03/04/15 11:16	
Toluene-d8 (S)	%	100	82-137	03/04/15 11:16	

LABORATORY CONTROL SAMPLE: 1528429

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	ug/kg	100	122	122	73-126	
1,2-Dichloroethane-d4 (S)	%			98	81-142	
4-Bromofluorobenzene (S)	%			99	82-119	
Toluene-d8 (S)	%			99	82-137	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: CLEAN HARBORS-WICHITA KS

Pace Project No.: 60188846

QC Batch: PMST/10518

Analysis Method: ASTM D2974

QC Batch Method: ASTM D2974

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 60188846001, 60188846002

METHOD BLANK: 1527968

Matrix: Solid

Associated Lab Samples: 60188846001, 60188846002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	03/03/15 00:00	

SAMPLE DUPLICATE: 1527969

Parameter	Units	60188846001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.6	16.1	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: CLEAN HARBORS-WICHITA KS

Pace Project No.: 60188846

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/67969

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CLEAN HARBORS-WICHITA KS

Pace Project No.: 60188846

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60188846001	GD-E3-W12.5-0.5'	EPA 8260	MSV/67969		
60188846002	GD-E3-W12.5-5'	EPA 8260	MSV/67984		
60188846003	TRIP BLANK	EPA 8260	MSV/67969		
60188846001	GD-E3-W12.5-0.5'	ASTM D2974	PMST/10518		
60188846002	GD-E3-W12.5-5'	ASTM D2974	PMST/10518		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

WO#: 60188846



60188846

Client Name: ISI

Courier: Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☒ ELI

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☐

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☒ None ☐ Other ☐

Thermometer Used: T-230 / T-194

Type of Ice: Yes Blue None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: -7

Temperature should be above freezing to 6°C

Date and initials of person examining contents: 3/3/15

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody filled out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler name & signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time analyses (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>K&S</u>
Rush Turn Around Time requested:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7. <u>1 day</u>
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Filtered volume received for dissolved tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Sample labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Includes date/time/ID/analyses Matrix: <u>SL</u>		13.
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
Trip Blank present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Lot # of added preservative
Pace Trip Blank lot # (if purchased): <u>120514.3</u>		15.
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	17. List State: <u>KS</u>

Client Notification/ Resolution:

Copy COC to Client? ☒ Y / ☐ N

Field Data Required? ☐ Y / ☒ N

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 3-3-15

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	15i Environmental	Report To:	15i	Attention:	
Address:	215 S. Laura	Copy To:		Company Name:	Clean Harbors
Email To:	Wichita KS 67211 lgortner@15ienvironmental.com	Purchase Order No.:		Address:	
Phone:	316-264-7050	Project Name:	Clean Harbors - Wichita KS	Pack Quote Reference:	
Requested Due Date/TAT:	24hr	Project Number:		Pack Project Manager:	Sherri Rosenstangle
				Pack Profile #:	7745.1
REGULATORY AGENCY					
				<input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER	
				<input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER	
Site Location				KS	
STATE:					

ITEM #	Section D Required Client Information	Valid Matrix Codes <table border="0"><tr><td>MATRIX CODE</td></tr><tr><td>DRINKING WATER DW</td></tr><tr><td>WATER WT</td></tr><tr><td>WASTE WATER WW</td></tr><tr><td>PRODUCT P</td></tr><tr><td>SOIL/SOLID SL</td></tr><tr><td>OIL OL</td></tr><tr><td>WIPE WP</td></tr><tr><td>AIR AR</td></tr><tr><td>OTHER OT</td></tr><tr><td>TISSUE TS</td></tr></table>	MATRIX CODE	DRINKING WATER DW	WATER WT	WASTE WATER WW	PRODUCT P	SOIL/SOLID SL	OIL OL	WIPE WP	AIR AR	OTHER OT	TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=CMP)	COLLECTED			# OF CONTAINERS	Preservatives <table border="0"><tr><td>H₂SO₄</td><td>HNO₃</td><td>HCl</td><td>NaOH</td><td>Na₂S₂O₈</td><td>Methanol</td><td>Other</td></tr></table>	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₈	Methanol	Other	Analysis Test ↑ V/N ↓		Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
			MATRIX CODE																												
			DRINKING WATER DW																												
			WATER WT																												
			WASTE WATER WW																												
			PRODUCT P																												
SOIL/SOLID SL																															
OIL OL																															
WIPE WP																															
AIR AR																															
OTHER OT																															
TISSUE TS																															
H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₈	Methanol	Other																									
ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp In °C	Received on Ice (Y/N)	Cooler (Y/N)	Samples Intact (Y/N)																					
1	G7D-E3-W12.S-0.5'	SL G	G	3-2-15	1220	5 X	X	X	X	X	N	2/6/90	C-1																		
2	G7D-E3-W12.S-5'	SL G	G	3-2-15	1230	5 X	X	X	X	X		↓	C-2																		
3	Trip Blank					2						↑	E-3																		
4																															
5																															
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